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ABSTRACT

Included in this booklet are nutrition learning activities intended to help elementary school students acquire knowledge that will enable them to select diets that meet their bodies' needs, both now and in the future. The learning activities correspond to specific nutrition education objectives and are presented separately for students in the lower grades (kindergarten through third) and upper grades (fourth through sixth). Related materials--including a daily food guide, a list of nutrients in food, and a calorie chart--are appended along with lists of resource books, films, games, pamphlets and teaching aids, and professional publications. (MP)

NUTRITION EDUCATION

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INTRODUCTION

Nutrition (the food we eat and its effect on our bodies), has a most significant relationship to our health and development before birth and throughout life. It is important that positive attitudes and habits regarding food intake are established during the formative years, so that they may serve as a pattern for the remainder of the life span.

Our society is rapidly changing and will continue to change. Traditional food patterns are being altered. Our children need to possess a workable knowledge that will enable them to select diets that meet their bodies' needs, both now and in the future. They need to acquire a knowledge of the amount of nutrients needed and the source of these nutrients.

The learning activities in this booklet present experiences to children that lead to the attainment of these goals. However, to be effective the activities must meet the needs, interests, and capabilities of the students.

It is of benefit when teaching nutrition to have an understanding of the children's needs, their present eating patterns and attitudes toward food. The needs can often be discovered by observing their eating patterns and examining their health records. Observation of plate waste at lunch can be informative. It is very revealing to ask the students to describe two dinners, one they would enjoy and one they would not, and why.

Nutrition education needs to be included as a viable part of the elementary curriculum so that it can become a positive force in the formation of habits and the development of knowledge that has a direct relationship to physical, intellectual and emotional well-being.

BASIC CONCEPTS OF NUTRITION

Nutrition is the food you eat and how the body uses it. We eat to live, to grow, to keep healthy and well, and to get energy for work and play.

Food contains nutrients for growth and for health. All nutrients needed by the body are available through food. Many kinds and combinations of food can lead to a well-balanced diet. No food by itself has all the nutrients needed for full growth and health. Each nutrient has specific uses in the body. Most nutrients do their best work in the body, teamed with other nutrients.

The amounts of nutrients needed are influenced by health, age, sex, size, and activity.

The way food is handled influences the amount of nutrients in the food, its safety, appearance, and taste. Handling means everything that happens to food while it is being grown, processed, stored, and prepared for eating.

(These concepts were developed by the Interagency Committee on Nutrition Education.)

NUTRITION EDUCATION OBJECTIVES FOR THE PRIMARY LEVEL

1. Children will recognize a variety of foods.
2. Have children understand the relationship between diet and growth and health.
3. Have children use good sanitation practices.
4. Have children practice acceptable behavior during meals.
5. Children exhibit improved acceptance of food.
6. Children select an adequate breakfast, lunch, dinner and snacks.

WHATSIT???

OBJECTIVE: Children will recognize a variety of foods.

Before a child learns the nutrients and their function he needs to know the foods that contain the nutrients. Before learning a potato contains Vitamin C, he should recognize the vegetable in its raw and cooked forms. Discovering that a potato has a pleasant bland taste that blends well with butter or gravy is more useful to the young child than understanding the effect of the digested potato on his body.

Perceptual Experiences: Exploration with the senses is one of the best ways for children to acquaint themselves with unfamiliar objects and at the same time they further the development of these faculties.

Touch: Make a mystery box by cutting two armholes in one side of a covered cardboard box. Place an item of food inside the box. Have the children put their hands inside and describe what they feel.

Kneading dough is an exciting experience for a child, highlighted with edible results.

Sound: Have children close their eyes while you bite a crisp apple, take a big swallow of milk or eat a piece of celery, and have them guess what they hear.

Have children describe or imitate sounds associated with certain foods, such as fat sizzling or popcorn popping.

Smell: Put small portions of different extracts or foods into small bottles. Ask children what the smell reminds them of and have them guess the food.

Sight: Have children name the colors of different foods.

By looking at various fruits and vegetables the children should be able to identify the part of the plant they are from--root, stem, leaves or fruit.

Taste: Tasting parties enable the children to utilize all their senses in the exploration of new food. They can compare foods in many different ways. How are oranges, lemons and grapefruit alike? "What kinds of seeds do apples, oranges and prunes have?" The class can compare raw and cooked foods or foods prepared by different methods. "How does a potato change when it is cooked? What is the difference between a fried egg and one that is boiled?"

Other Sensory Activities:

Grab Bag--Let children select a food from a grab bag. Have them describe it and identify it.

During lunch ask the class questions to reinforce what they have learned in the classroom. "What do you have on your plate that is white and fluffy (mashed potatoes), and what is red and slippery (jello)?"

Movies can help children understand how food is grown and produced, but a field trip makes a lasting impression on a child. If there is farming in your area arrange for the class to visit during planting or harvesting.

If a farm visit is not practical, the class could go on a fall berry-picking expedition in a nearby field or woods. On returning to the school, they can prepare their findings as a sauce or jam.

Trips to grocery stores, dairies or bakeries are other possibilities.

Art Activities: Many art projects enable children to become more familiar with foods. Foods can serve as both the subject and the medium for the project.

Dye and decorate hard-boiled eggs. After eating the eggs, the students can use the pieces of colored shells to make collages.

Draw a mural of a farm.

Make a collage using different seeds the children have saved, such as apple, prune, tomato, dry peas and beans. While the children work, discuss the fruit and vegetable seeds with them. Which seeds will grow into trees? Which ones do we eat? Have the class plant some of the same kinds of seeds they use in the collages.

Attach several sheets of blue paper in a horizontal line across part of a bulletin board and attach a row of brown paper beneath to represent the air and the ground. Have children draw or cut out pictures of edible plants. Pin the pictures to the board to illustrate whether the edible portion of the plant is above or in the ground. Discuss how the roots, leaves, stems, and fruit of different plants are eaten. (Seed catalogs are very useful for this project.)

Food collages can be made of many common foods. Paste products are excellent for this purpose. Popped and unpopped popcorn, nuts, oatmeal, rice, and coffee can also be used. Provide generous amounts, as these types of art supplies tend to disappear.

Science Activities: Children can utilize their immediate environment as a laboratory. Through experiments with plants, food and cookery, a child can learn more about himself and his world.

"How do plants get water?" Place a celery stalk in a glass of colored water. After it turns color cut into pieces for the class to examine. "How are plants like man?"

Observe the effects of heat and cold on different foods. Gelatin, eggs, chocolate, and water are examples of foods the class can test. Which foods return to their original form?

Study dried food. Give each child a piece of fresh apple or carrot. Have him feel it and describe it. Place the sample on a piece of paper and draw around it and place it in the sun to observe for several days. What happens?

Soak dried fruit overnight. Give each child a dried fruit and a soaked one. Let them feel and taste and compare the two.

Cooking experiences are exciting to children and they provide the opportunity for the child to discover for himself what different foods are like and how they react under different conditions. At the same time, the child is given the chance to further his motor development, communication and math skills.

WE ARE WHAT WE EAT

Objectives: Have children understand the relationship between diet and growth and health.

The relationship between good nutrition and good health is more readily comprehended by a child if he can see and compare the results of both poor and adequate diets. Effective illustrations are visual aids and plant and animal experiments.

Activities

Children display their baby pictures and discuss how they have changed.

Students record their height and weight at least three times during the year. A chart can be permanently displayed on a classroom wall.

Plant Experiments What Do Plants Need to Grow?

Part I. Divide children into small groups. Give each group a different type of vegetable seed. Have them plant a few seeds in four different paper cups. Fill a fifth cup with water and add seeds. Keep the cups in a sunny place or use a grow light and water as required.

When the plants have sprouted out of the soil, keep cup number one in the light and continue to water. Leave the second cup in the light but stop watering. Place the third in the dark but continue watering. Keep the fourth in the dark without water and the fifth in the light.

Label the containers and place a stick in the dirt to mark the height of the plant at regular intervals.

Part II. Plant several varieties of seeds in different types of soil--sandy, clay, poor, rich, and mixed. Label the containers with the type of seed and type of soil. Place markers in the dirt so that children can measure the growth at regular intervals.

Part III. Have children compare themselves to plants. What do they need to grow?

Part IV. Have a tasting party to try some of the varieties of vegetables that the children grew.

Display and discuss the National Dairy Council poster, "Milk Made the Difference."

Have children dramatize the different types of food included in the school lunch and their functions. (The food service manager may serve as a resource or guest speaker.)

If an upper grade is having an animal feeding experiment, have your class follow the progress and results closely.

KEEP IT CLEAN

OBJECTIVE: Have children use good sanitation practices.

The development of good sanitation practices is a daily activity and learning opportunities occur throughout the day. Incidents such as a dropped eating utensil or a child returning after being ill with the measles can foster class discussions about cleanliness and its importance and the spread of bacteria.

ACTIVITIES:

Discuss with the class what germs are and how they are carried.

Explain to the children how foods and utensils become dirty and how they can be protected.

Have children wash their hands before eating and discuss with them the importance of this.

Visit the school kitchen to let the children observe the care and attention that is given to cleanliness during the preparation of meals. Have the food service manager or school cook point out special features such as hairnets, plastic serving gloves, sneeze guards or dishwashing methods.

Have children dramatize what they have been told about sanitation as a learning reinforcement.

Cleanup is an important part of all art projects, tasting parties and cooking experiences. With teacher guidance the children can put into actual practice good sanitation habits.

Children also learn sanitation habits through observation and imitation. They follow the examples that are set for them at home and at school.

MINDING YOUR P'S AND Q'S

OBJECTIVE: Have children practice acceptable behavior during meals.

Children learn manners by observing others around them who have more experience. They watch their parents, siblings and teachers and adapt mannerisms to their own use. What an adult demonstrates is often more meaningful to a child than what the child is told. By sharing meals with the students, a teacher can make a large impact on their behavior during meals.

ACTIVITIES:

For young children, their first experience in the school lunch room can be an overwhelming experience. A tour of the lunch room and a trial run through the lunch line can make the first week's lunch period more pleasant for everyone.

Have class discuss good manners and then dramatize what they have learned.

Invite parents to lunch or to a sampling of a class-prepared delicacy. Have children decorate and make place mats for the occasion.

Children may enjoy studying eating customs of other countries. Discuss what makes manners "good" or "bad."

TRY IT, YOU'LL LIKE IT

OBJECTIVE: Children exhibit improved acceptance of food.

Children are often suspicious of new foods and are reluctant to take the initial bite of an unfamiliar dish. An untimely "ick" uttered by a peer, or frown from a teacher as she tastes a food may keep a child from taking that first taste. One of the most effective ways to overcome suspicions is to let the child thoroughly investigate the food before he tastes it. Let him touch it, smell it, grow it, and even cook it himself.

It is best not to force a child to eat a particular item on his plate or to use dessert as a bribe to achieve a clean plate. He could be encouraged to try a bite or two, and hopefully he will without pressure.

ACTIVITIES:

Select a vegetable to research, such as peas, beans or carrots. A good choice would be a vegetable that is currently unpopular in the lunch room.

How do seeds sprout?

Thoroughly wet a towel and wring it dry. Scatter seeds over the towel. Roll it up. Check the seeds every day.

What happened to the seeds?
How long before they sprouted?
Did they all sprout?
Do all seeds sprout at the same rate?

Have each child plant a few seeds in a clear plastic cup. If seeds are planted near the edge of the cup the roots can be observed. After the plants are growing well, the children can take them home and a planter can remain in the classroom for observation.

Hold a tasting party to try the vegetable that is being grown. If possible, sample both the raw fresh vegetable and the canned vegetable.

Heat the canned vegetable in the classroom on a hot plate. Add some butter, salt and pepper, if it is appropriate.

Serve each child a small portion.

Serve the raw vegetable in a similar way and let children compare the two.

Have the cook prepare the vegetable soon, as part of the school lunch.

The occasion can be made very special by having the children make decorations and place mats.

Utilize holiday themes as a means to introduce new foods or reacquaint children with unpopular ones. Include food preparation as part of your holiday lesson plans.

Halloween - Carve a pumpkin. Roast the seeds. (Spread in a shallow pan and roast at 350 degrees for 15 to 20 minutes. Reduce heat if seeds pop.) Make pumpkin pie.

Christmas - Discuss customs around the world. Prepare some Christmas cookies from other countries.

St. Patrick's Day - Tell about Irish history and folklore. Let children peel potatoes with a vegetable peeler and taste them raw. Have the cook make an "Irish Stew" for lunch.

Establish one-bite and two-bite clubs to encourage children to try items on their plates.

Tour the school kitchen and watch the lunch being prepared.

Success in encouraging children to accept foods can often be measured by the food on the lunch plates.

ENEY, MINEY, MOE

OBJECTIVE: Children select an adequate breakfast, lunch, dinner and snacks.

Even children of primary age should be able to select an adequate diet and nutritious snacks. One of the best opportunities offered for learning is the school lunch program. Make full use of this resource and its personnel.

ACTIVITIES:

Make a train (four cars) out of shoe boxes. Label the cars "Meat," "Fruit and Vegetable," "Milk," and "Bread and Cereal." Have children cut out pictures of different foods and glue them on cardboard. Let children place their cards in the proper car.

Explain the types of food included in the Type A Lunch and their importance. Have children plan menus using this information, and ask the school cook to prepare one of the classes' menus. Parents may be invited and the children could present a skit acting out the nutritional significance of the lunch they planned.

Discuss what makes a good breakfast. Ask children what they like for breakfast. Have the class plan and prepare a simple breakfast at school.

Discover what children in other countries eat for breakfast. The National Dairy Council poster "What Did You Have For Breakfast This Morning?" is an excellent visual aid. It shows children from around the world in their native dress. Teacher's Guide provides information about typical breakfasts around the world. (See appendix for ordering information.)

Art activities are an exciting and subtle way to introduce children to the components of a well-balanced meal.

Mobiles - Children can cut out or draw their idea of good meals. Teacher/student interaction can add to the value of this exercise. (You chose cake, candy and ice cream. Which one helps you grow? What is in ice cream that helps you grow? That's right, milk.)

Posters - Children can make posters of balanced meals, healthy foods, groupings of different types of food, or nutritious snacks.

Collages - Students can use cut-out pictures of food to construct collages emphasizing what they have learned.

Role playing, skits and puppet shows are ways to teach children the components of a good diet while developing language skills. Children can dramatize such activities as ordering food at a restaurant, planning meals for a family, grocery shopping, or being a school cook.

Snacks need to be chosen with care to provide good nutrition and to avoid encouraging tooth decay. (A list of snacks is provided in the appendix.) Discuss with the class the effect of sugar on teeth. The Alaskan Dental Health posters are very good visual aids.) Invite a dentist or dental hygenist to visit the class to discuss snacking with the class and to explain the role of brushing.

Cut a marshmallow and an apple in front of the class. Which one sticks to the knife? Which food would be better for the teeth and why? Have students list other foods that stick to the teeth. Make a list, poster, or collage of good snacks.

OBJECTIVES FOR

UPPER ELEMENTARY GRADES

OBJECTIVES FOR THE UPPER ELEMENTARY GRADES

I. Students can identify the Four Food Groups and explain the nutrients provided and the functions performed.

II. Students recognize the relationship between nutrition and health and growth.

III. Students recognize that foods are composed of many substances, both visible and invisible, and reactions between these components and the effects of physical conditions are responsible for developing food into particular forms.

IV. Children understand the origin of common foods and how foods are processed.

V. Students recognize the influence of culture on eating patterns.

VI. Students continue to develop good attitudes toward food and to learn good eating and sanitation habits.

VII. To study Alaska's food supply and the factors that affect it.

OBJECTIVE I: Students can identify the Four Food Groups and explain the nutrients provided and the functions performed.

Children should gain an understanding of the connection between diet and health through the activities in this section. They should learn what foods do for the body. Emphasize the more outstanding functions, such as strengthening bones. Presentation of too many functions will confuse the class. Once the students possess an understanding of basic nutritional concepts, introduce them to the more fundamental nutrients: protein, Vitamin A, Vitamin C, iron, calcium, and the B Vitamins. As learning progresses, more nutrients may be introduced if the class is ready.

ACTIVITIES:

Discuss the Four Food Groups and their function. Display educational materials and charts from USDA, the Cooperative Extension Service, National Dairy Council, and food processors. (See the Appendix.)

Have children make their own Big Four posters by drawing or cutting out pictures of food.

The class can create balanced diet mobiles.

Invite the food service manager or school cook to explain the foods that compose the Type A lunch.

With the cooperation of the food service staff, the class can plan a week or a month of school lunches. Have the students analyze their menus to insure that the Type A requirements are met and that a variety of flavor, color, shape and texture is provided.

Have the class create a skit explaining the importance of a Type A lunch and its contribution to health and growth. Ideas for such a skit could be a five-car train with each car representing a component of the lunch, or the actors could dress as foods from each category of the lunch.

Have the students record and evaluate their food intake for a specific period of time. Have them recommend changes that should be made in their own diets. Grading should not be based on the adequacy of the diet, but on the quality of the analysis.

OBJECTIVE II: Student recognizes the relationship between nutrition and health and growth.

The relationship between a good diet and good health is very apparent when children can observe animals that are receiving adequate diets and compare them to ones that are malnourished.

Rat Feeding Experiment

The class can decide the goal of the experiment. They might compare a Type A lunch to a diet of snack foods, or a balanced diet compared to one that does not include milk or milk products. The purpose should relate to a relevant nutritional problem.

Materials

2 to 4 rats four weeks old weighing between 40 and 70 grams. They should be the same sex, as males grow more rapidly.

Cages

Gloves for handling the rats

Cloth to cover the cages at night

Scale suitable for weighing the animals

Container to hold rat during weighing--cardboard box with lid and air holes poked in sides.

Feed and water dishes that cannot be tipped over.

Procedure:

All animals should be given a good diet for a few days until they adjust to the new environment. Beside their special diet, each rat should always have a supply of dry bread crumbs with a little salt added. This dish of cage food should be wired to the cage so that it cannot be spilled.

Clean the cages daily. Fill dishes with cage food and liquid. (The rats drinking soft drinks do not need water.) Feed rats the test diet. Over the weekend, give the animals extra amounts of their diet, cage food and liquid. Be sure dishes cannot be tipped.

Each week weigh the rats at a designated time. Remember to take the weight of the container holding the rat into account.

Results can be recorded on charts and graphs. Changes in the rat's appearance and temperment should be recorded. A definite difference in the rats should be observed in five weeks. At that point the malnourished rat should be put on a good diet and observed until he recovers.

Note: The animals should be handled gently and quietly. They are overly excited by loud voices and noise. Rats are susceptible to drafts, especially the undernourished rat. Room temperature should be kept constant.

A rat lives 30 times faster than a human. A day for a day is equivalent to a month for a man. At four weeks a rat is equivalent to a 2-1/2 year-old child, and at 13 weeks a seven-year-old.

Alternate Activities

Have children make a chart of their weight and height since they entered school.

Observe dogs in the community and compare their diets and appearance. Ask a dog musher to visit the class and describe what his dogs eat as a regular diet and what they eat on a long race or cross-country trip.

Soak chicken bones or egg shells in a covered jar of vinegar to remove the calcium and phosphorus, making them flexible. "What would our bones be like

without calcium and phosphorus? What foods give us calcium?" (This experiment may take several weeks. To hold the class interest, it is best to display the jar after the softening begins.)

OBJECTIVE III. Students recognize that foods are composed of many substances, both visible and invisible, and reactions between these components and the effects of physical conditions are responsible for developing food into particular forms.

Numerous experiments can be conducted to obtain this objective. Some science texts offer suggestions, the Appendix lists several books on the subject, and any cook book is filled with scientific experiments. Experiments with food serve many purposes. They teach scientific principles while letting the children explore and examine foods for themselves, and if all goes well they conclude with tasty end products. Below is a detailed description of experiments connected with the production of yeast bread. It is followed by suggestions of others the class could try. The details for these will be found in most good cook books. "The Joy of Cooking" is highly recommended, as it includes excellent explanations of reactions that occur.

BAKING BREAD

This activity demonstrates the process of baking bread. It illustrates how bread rises and what gives bread its structural support. Children are introduced to carbon dioxide, yeast and gluten and their roles in producing bread.

Carbon Dioxide: Have children explain carbon dioxide and its properties. Open a bottle of pop in class. What makes the pop fizz?

Yeast: Have the class research yeast and its characteristics. They should discover it is a one-celled plant, a cousin to the mushroom, and that it cannot produce its own food. Yeast consumes sugar and gives off carbon dioxide as a waste product. The following experiment will verify this.

What Does Yeast Need to Grow?

Materials

Sugar	Dry yeast (1 pkg. per group)	Dishpans (1 per group)
Corn syrup	Measuring cups	Spoons
Cornstarch	Candy thermometer	Measuring spoons
Water	Six-ounce glasses (3 per group)	

Divide the class into groups. Have each group dissolve one package of yeast in 1/2 cup of 90 degree water. Divide the mixture equally in three small glasses. Fill the dishpans with the warm water (90 degrees) to make a warm bath for the yeast. The water should be a little below the top of the glasses. Be sure to number the glasses.

Put one tablespoon of sugar in the first glass, one tablespoon of syrup in the second, and one tablespoon of cornstarch in the third. Stir each glass with a clean spoon. Put the glasses in the bath. Evaluate fermentation by the size of bubbles in the foam and the rate which they form.

SAVE THE MIXTURES FOR THE BREAD RECIPE.

What Gives Bread Its Shape?

Have the class examine and describe the structure of the bread they have with lunch. Point out the air holes. The following experiment demonstrates what supports the structure of bread.

Procedure: To one cup flour add just enough water to make a stiff dough.

Mix well and let stand for five minutes. Knead for ten minutes.

Place dough in a cheese cloth or other loosely woven material and soak in cold water for 10 minutes. Leave dough in the cloth.

In a bowl of cool water or under cool running water, pull and stretch the dough. Do not squeeze it. All the starch should be washed out and a rubbery mass of crude gluten remains. It resembles a discolored lump of chewing gum.

Shape gluten into a smooth ball and place on a pan lined with heavy paper and bake for 30 minutes at 425 degrees. Reduce the temperature to 300 degrees and bake for 30 minutes more or until dry.

Cut the gluten ball and make observations. Compare the structure of the ball to the structure of bread.

BAKING BREAD

Materials and Equipment:

Mixture from yeast experiment
6-1/2 cups all-purpose flour
2-1/2 teaspoons salt
1 tablespoon cooking oil
1-1/4 cup warm water
1/4 cup dry milk powder

Large bowl
Clean surface
Measuring spoons
Heavy spoon
Bread pans

Procedure: Pour the dry ingredients into a bowl. Make a well in the center. Add the other ingredients. Stir and add more water or flour until dough is the consistency to knead. Dough should not stick to sides of bowl.

Lightly flour a clean surface. Place dough back into the bowl. Cover with a clean cloth and let rise in a warm place. (Sample the dough.)

After the bread has doubled (about 1 hour), punch it down. How has the dough changed? Why is it stretchy? Examine the air pockets and their distribution. Taste the dough again. Has the flavor changed?

Put the dough into bread pans and let rise until doubled. Preheat oven to 450 degrees. Bake at 450 degrees for ten minutes. Reduce heat to 350 degrees and bake about 30 minutes or more.

OTHER COOKING EXPERIMENTS

Popping popcorn
Rock candy
Homemade baking powder
Gelatin (effects of raw pineapple)
Muffins (results of under and over beating)
Overcooking vegetable

What happens to the color of the vegetable?
What happens to the color of the water?

OBJECTIVE IV: Have children understand the origin of common foods and how foods are processed.

Understand the origins of food increases the child's interest in the food, and the increased knowledge may lead to better acceptance. An understanding of processing enables the child to compare different forms of the same food and similar forms of different food items. This also helps to stimulate interest and acceptance of foods.

ACTIVITIES:

View films and read books that show how different foods are grown commercially and the steps taken to process them.

Visit a local store and with the help of the store manager, discover where different foods are processed. Sardines, bananas, coffee, tea, milk, eggs, orange

juice, and canned corned beef may have interesting origins. Examine the labels of canned pineapple and canned Alaskan seafood. Are they processed where you would expect? How can this be explained?

Make a map of the world or the United States and paste small pictures of food over the area where the item is grown. Some foods may be found in several different areas.

Divide the class into groups and have them research the staple diet in different parts of the world. Is there a correlation to diet and the foods produced in that country?

Have children make a map of Alaska and indicate on it the location of foods produced in the state. Be sure they include wild edible plants, fish and game.

Research foods that children in the other parts of the state eat. For example, what would children in Selawik, Aniak, or Hoonah have for dinner in the summer and in the winter? The class can write to students at other schools to find the information for this project.

Watch a movie showing grain production. Process flour in class. Grind either whole wheat grain or cracked wheat (bulgar) in a coffee grinder. Use the flour to make bread.

If a pressure canner is available, the class may try processing fish, meat, or vegetables. An alternative is to invite a mother to give a canning demonstration to the class. The class may like to try other methods of preserving food, such as drying, smoking and freezing.

OBJECTIVE V: Students recognize the influence of culture on eating patterns.

Through an understanding of the effect culture makes on eating patterns and habits, the child gains an understanding of unfamiliar foods and at the same time a better understanding of people in other parts of the world and of himself and his own environment.

ACTIVITIES:

Discuss with class why they think they chose to eat the foods they do. Do they eat the same foods now that they ate when they were two or three--why not? What foods do their parents eat that they don't? Do they eat foods their parents usually do not eat?

Have children ask their parents about changes that have taken place in the

parents' eating habits. (Perhaps the parents once depended solely on wild game and plants for food. Maybe one of the parents is from a foreign country. Someone's mother may do most of her cooking in a microwave oven.) Children can share the information they learn with the rest of the class.

When studying the different regions of Alaska, the United States or the world, investigate the food habits of the area. What influence does climate, topography and economic conditions have on food habits? What effect do they have on how food is preserved and prepared?

Have students pick a foreign country and plan a Type A lunch that might be served in that country. Ask the school cook to prepare some of the class menus.

List foods and dishes of foreign origin that are now common in American diets. "How do you think they became popular?"

Investigate eating habits in different regions of the United States. Give reason why you think certain foods became regional favorites.

The study of cultural food habits provides many opportunities to introduce cooking experiences and tasting parties. The class may make Christmas cookies, simple peasant breads, or elaborate full-course meals from foreign places.

OBJECTIVE VI: Students continue to develop good attitudes toward food and learn good eating and sanitation habits.

Activities to obtain this objective in the intermediate grades are much the same as those used in the primary grades. The aim is to increase the children's exposure to new foods and to stimulate their interest. Steps to continue development of good habits of eating and sanitation employ the same activities as introduced in the primary section.

ACTIVITIES:

Refer to Sections I, III, IV and V of the Primary portion of this booklet. Many of the activities listed in these sections can be adapted for the upper grades.

Tasting parties and cooking experiences are most effective in developing favorable attitudes toward foods. Older elementary children are capable of preparing more complex recipes. Time and available equipment will be the limiting factors in their cooking, rather than skill and dexterity.

Edible science experiments are ideal means of increasing positive attitudes toward foods and nutrition.

Role playing and writing and performing kits are an effective means of reinforcing good eating and sanitation habits.

Older children can give demonstrations to the lower grades on aspects of sanitation and manners.

OBJECTIVE VII: To study Alaska's food supply and the factors that affect it.

Educational activities are more meaningful to children if the activity can be related to circumstances that directly affect the student. An Alaskan child is constantly exposed to discussions of the declining game populations, predictions of poor fishing seasons, and complaints that farm land is disappearing into subdivisions. It is important that the child study and develop an understanding of the food resources within the state.

ACTIVITIES:

Study food production in Alaska. What foods are produced? What changes are taking place? Is farming a growing industry and why? (The State Division of Agriculture, 510 South Alaska Street, Palmer, Alaska can serve as a valuable resource.)

Research Alaska's fishing industry. What fish are caught commercially? Investigate the processing of several types of fish and shellfish. What changes are occurring in the fishing industry? What role do other countries play? (The United States Fish and Wildlife Service and the State Department of Fish and Game, as well as current newspapers will serve as resources.)

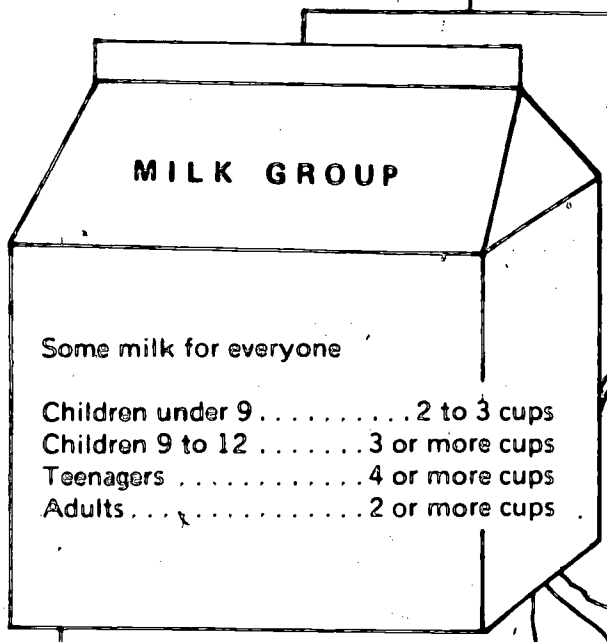
The newspapers frequently contain articles on the food supply. Have the class examine current newspapers and news magazines for such articles to clip out and bring to class. Have the class relate the articles to Alaska.

Children can research the game populations throughout the state or within their regional area. The State Fish and Game Department can provide statistics and predictions of future changes in game populations. They can help the class determine the importance of various animals as food sources.

Have the students write reports or develop graphs, charts and maps illustrating the information they have learned about Alaska's food resources.

APPENDIXES

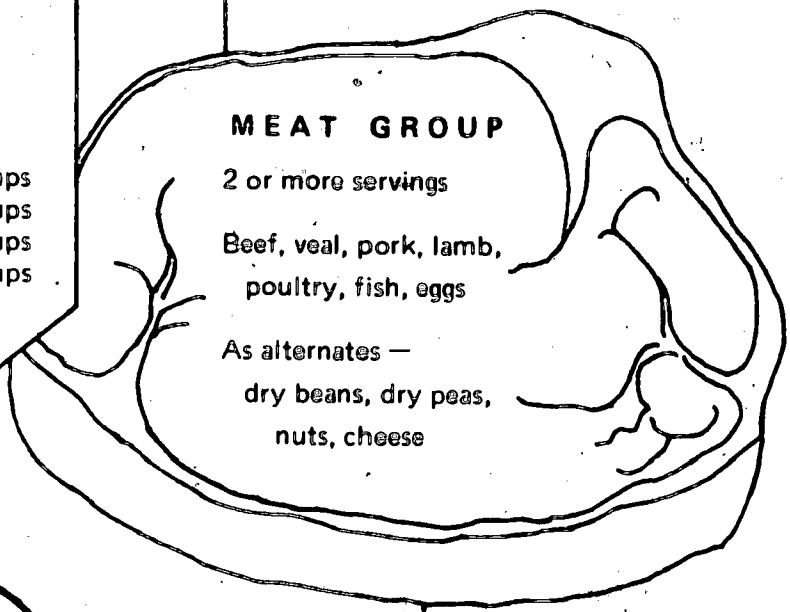
A Daily Food Guide



MILK GROUP

Some milk for everyone

Children under 9 . . . . . 2 to 3 cups
Children 9 to 12 . . . . . 3 or more cups
Teenagers . . . . . 4 or more cups
Adults . . . . . 2 or more cups

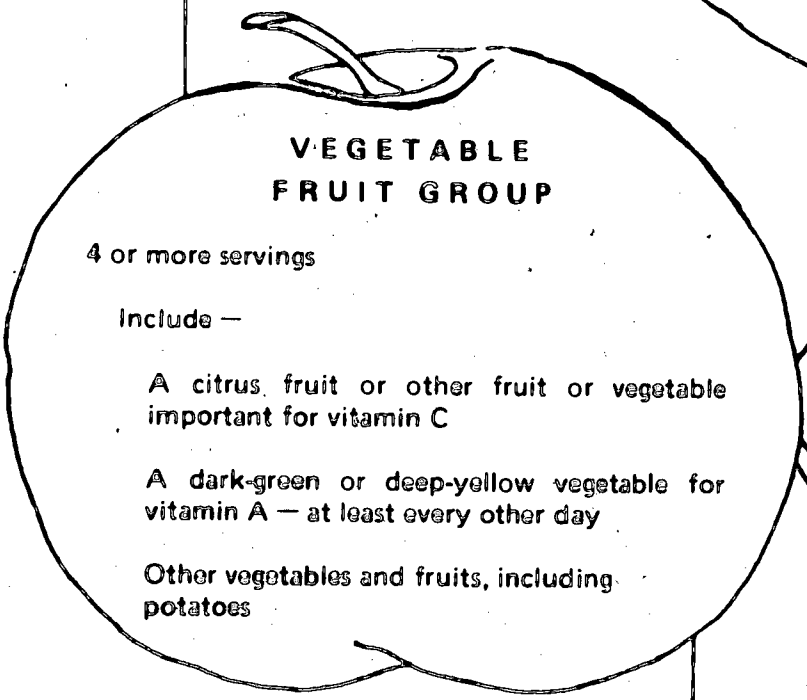


MEAT GROUP

2 or more servings

Beef, veal, pork, lamb, poultry, fish, eggs

As alternates — dry beans, dry peas, nuts, cheese



VEGETABLE FRUIT GROUP

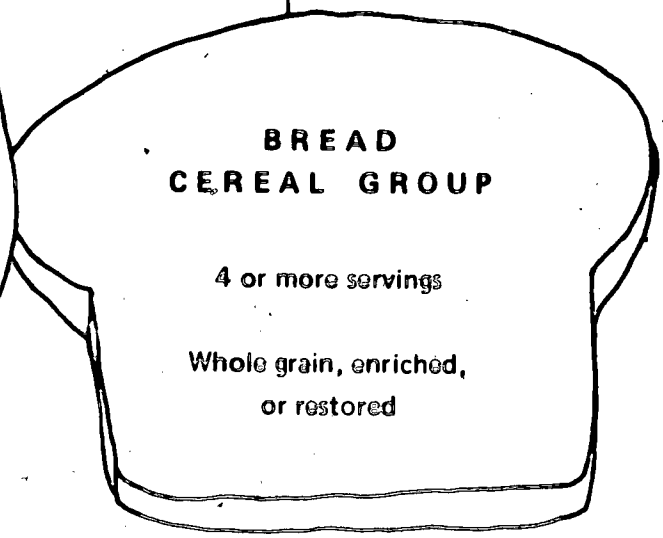
4 or more servings

Include —

A citrus fruit or other fruit or vegetable important for vitamin C

A dark-green or deep-yellow vegetable for vitamin A — at least every other day

Other vegetables and fruits, including potatoes



BREAD CEREAL GROUP

4 or more servings

Whole grain, enriched, or restored

Plus other foods as needed to complete meals and to provide food energy and other food values

USDA SCHOOL FEEDING PROGRAM REQUIREMENTS
BREAKFAST TYPE A LUNCH SERVING SIZE *

FOOD GROUP	BREAKFAST	LUNCH	SUPPLIES THE FOLLOWING NUTRIENTS AND CALORIES
Milk	½ pint fluid, whole milk as a beverage or on cereal or used in part for each purpose.	½ pint fluid, milk as a beverage.	Calcium, Riboflavin, Protein, Vitamin A, if whole milk. Other Nutrients Vitamin B-12 Phosphorus Magnesium.
Meat or Meat Alternate (Protein-Rich)	Serve 1 ounce meat or meat substitute as often as practicable.**	2 oz.(edible portion as served)lean meat, poultry, or fish; or one egg; or ½ cup cooked dry beans or peas; or 4 tablespoons peanut butter; or an equivalent quantity of any combination of the above listed foods.	Protein Iron B Vitamins Other Nutrients Phosphorus Vitamin B-6 Vitamin B-12
Vegetables and Fruits	½ cup fruit or full strength fruit or vegetable juice.	¾ cup serving consisting of two or more fruits or vegetables, or both.	Vitamin C Vitamin A Iron Other Nutrients Vitamin B-6 Magnesium.
Bread	1 slice wholegrain bread or enriched bread; or a serving of cornbread, rolls, muffins, etc. made of wholegrain or enriched meal or flour. Or, 1 serving enriched cereal.	1 slice of wholegrain or enriched bread, or 1 serving of other bread, biscuits, rolls, muffins, made of whole grain or enriched meal or flour.	B Vitamins Thiamine Riboflavin Niacin Iron Calories Other Nutrients Vitamin B-6 Magnesium

* See Type A School Lunch Guide to The Amounts of Food for Boys and Girls of Specified Ages.
** Additional foods may be served with breakfast as desired.

NUTRIENTS IN FOOD

NUTRIENTS	BEST SOURCES	FUNCTIONS
PROTEIN	Beef, Moose, Pork, Seal Liver Poultry Fish Milk Cheese Eggs Dried Beans & Peas	Build, maintain and repair all body tissue
CARBOHYDRATE	Sugars Syrups Molasses Bread Crackers Cereals Flour and Flour Products Potatoes Other Starchy Vegetables	furnish heat and energy
FAT	Butter Lard Vegetable Shortening Margarine Salad Dressings Fat from Meat Bacon Oils Nuts Cheese	furnish heat and energy
CALCIUM	Milk Cheese Sardines Fish Shellfish Dark Green Leafy Vegetables	develop and maintain bones and teeth

NUTRIENTS	BEST SOURCES	FUNCTIONS
	Liver Beef, Moose, Pork, Seal Oysters Dried Beans & Peas Dried Fruit Chicken Eggs Dark Green Leafy vegetables	to help form homoglobin (the red substance of blood cells) Carry oxygen to body tissues
IRON		
VITAMINS		
	Liver Sweet Potato Spinach Carrots Cantaloupe Squash, Winter Dark Green Leafy vegetables	promote growth and repair of body tissues build general good health help maintains normal vision and healthy eyes help keep soft, smooth skin
VITAMIN A		
	Pork Pork Link Sausage Dried Beans & Peas Liver Lamb, Veal Luncheon Meat Nuts, Peas	help convert carbohydrates to energy help maintain good appetite aid in digestion and assimilation of food help the heart, nerves and muscles function properly
THIAMINE (B1)		
	Liver Poultry Milk Beef, Moose, Pork Luncheon Meat Oysters Tongue Fish Cheese – Cottage	Help maintain good vision and healthy clear eyes build healthy skin and mouth tissues promote well-being and vitality
RIBOFLAVIN		

NUTRIENTS	BEST SOURCES	FUNCTIONS
NIACIN	Liver Fish Poultry Beef, Moose, Pork Peanut Butter Pork Link Sausage Luncheon Meat	build and maintain healthy skin and tongue Aid digestion help the nervous system function help use carbohydrate efficiency
ASCORBIC ACID (Vitamin C)	Orange Grapefruit Broccoli Strawberries Tomato Melon Cabbage Liver Potato Dark Green Leafy vegetables	help maintain firm healthy gums help build and maintain bones, tissues and blood utilize iron properly help resistance to infection help heal wounds and fractures
VITAMIN D	Fish Liver Oil Liver Milk (fortified) Eggs Sun	promotes normal growth

NUTRITIOUS SNACKS

These snacks are divided into three groups by their effect on teeth. All are healthy and nutritious. Some contain more starch and sugar than others.

Nutritious Foods that Help Clean the Teeth

These foods do not stick to the teeth. Some act as tooth brushes and help clean teeth. All should be served without sugar.

FRUITS

Berries — fresh or frozen
Apples
Oranges
Grapefruit
Any other fresh fruit

VEGETABLES

Raw carrots
Cabbage
Raw turnips
Rutabagas
Celery sticks
Lettuce
Tomatoes
Radishes
Raw onions
Raw cauliflower

EGGS — Hard cooked

NUTS — All kinds, salted or plain

MEAT

Hamburgers
Smoked or dried salmon or other fish
Dried meat pieces
Luncheon meat
Jerky
Hot dogs
Poultry

CHEESE

Cottage
American
Cheese spreads
Cheese dips
Any other cheese

SALADS

Cole slaw
Greens
Lettuce
Canned vegetables
Fresh fruit salad

Nutritious Foods that Contain Starch

These foods are not sweet, but do pack between the teeth and cause decay. Be sure to brush teeth well after eating.

CRACKERS

Saltines
Pilot Bread
Jersey Creams
Any other Salty Crackers

SALAD

Macaroni
Potato
Bean

SANDWICHES

Meat and meat spreads or salads
Cheese — toasted or plain
Peanut butter
Fish and fish salad
Egg salad
Bread and butter

BREADS

Pancakes and waffles
Biscuits
Toast cut in different ways
Bread and butter
Pretzels
Fried bread
Coffeecake
Sourdough
Pizza
Any other breads
potato chips

CEREALS

Unsweetened dry cereal such as:
Cornflakes
Wheaties
Cheerios
Total
Special K and others
Popcorn, salted
Unsweetened cooked cereals:
Oatmeal
Farina
Zoom and others

FRUITS

Dried fruits:
Figs
Apples
Apricots
Prunes
Raisins
Peaches

Nutritious Foods that Contain Sugar

These foods contain nutrients as well as sugar. They provide nourishment along with sugar. Brush teeth after eating.

FRUITS

Any fruit canned or prepared
with sugar
Eskimo ice cream with fruit
Strained or junior fruit used
for babies or on ice cream
as sauce.

PUDDINGS

Cooked puddings of various flavors
Custards
Rice Puddings
Tapioca
Instant Pudding
Canned Pudding

JELLO

Plain — homemade
with cottage cheese
with fruit

COOKIES

Peanut butter
Oatmeal

DRINKS

Hi-C
Hawaiian Punch
Tang
Start
Nectars
Lemonade
Awake
Orange Plus

SWEET LIQUIDS

Flavored milks of all kinds
Ice cream
Eggnog
Cocoa

LIQUIDS Liquid snacks can be either sweet or non-sweet. Liquids do not stay in the mouth long. Sweet liquids dull the appetite for more important foods. Unsweetened juices contain natural sugar. Some juices have sugar added. Check the label before buying.

CALORIE CHART

BEVERAGE

Chocolate milk, 1 glass	190
Cocoa (all milk), 1 cup	180
Grapefruit juice, 1 small glass	70
Lemonade, 1 glass	100
Milk, 1 glass	160
Orange juice, 1 small glass	100
Pineapple juice, 1 small glass	80
Soft drinks, 1 glass	100
Soft drinks (diet colas), 1 glass	1
Tomato juice, 1 small glass	30

BREADS

Biscuits, 1 medium	100
Bread, 1 slice	60
Corn bread, 1 piece	105
Rolls (hard), 1 medium	100
Rolls (plain), 1 medium	120
Rolls (sweet), 1 medium	180

BREAKFAST CEREALS

Bran flakes, 1 serving	100
Corn flakes, 1 serving	110
Oatmeal, 1 serving	150
Rice cereals, 1 serving	110
Wheat cereals, 1 serving	100

CAKES

Angel food, 1 piece	110
Cake (with icing), 1 piece	320
Gingerbread, 1 piece	200

CHEESES

American, 1 slice	115
Cottage, 1 tablespoon	25
Cream, 1 tablespoon	50
Swiss, 1 slice	100

COOKIES AND CRACKERS

Graham crackers, 1	15
Oatmeal cookies, 1	50
Saltine crackers, 1	15

EGGS

Boiled eggs, 1 large	80
Fried eggs, 1 large	110
Scrambled eggs, 1 large	120

FRUITS

Apples, 1 medium	70
Bananas, 1 medium	130
Blueberries, 1 cup raw	85
Grapefruit, ½ medium	50
Grapes, 1 medium bunch	75
Oranges, 1 medium	70
Peaches, 1 cup canned	200
Pears, 1 cup canned	195
Pineapples, 1 cup canned	195
Plums, 1 cup canned	205
Raisins, ¼ cup	100
Watermelon, 1 slice	170

ICE CREAM

Ice cream, 1 scoop	120

MEAT

Bacon, 2 strips	100
Beef (roast), 1 serving	250
Beef (steak), 1 serving	250
Bologna, 1 slice	85
Caribou, 1 serving	95
Chicken (roast), 1 serving	170
Frankfurter, 1	130
Ham, 1 serving	300
Hamburger, 1 medium patty	230
Moose, 1 serving	95
Pork chop, 1 medium	260
Seal, 1 serving	110

NUTS

Peanuts, ¼ cup	200

PIES

Apple, 1/8 pie	275
Cherry, 1/8 pie	275
Lemon meringue, 1/8 pie	200
Mince, 1/8 pie	280
Pumpkin, 1/8 pie	235

PUDDINGS

Chocolate, 1 serving	200
Custard, 1 serving	100
Rice, 1 serving	200
Tapioca, 1 serving	130
Vanilla, 1 serving	150

SEAFOODS

Fish sticks, 1	40
Haddock, 1 serving	140
Salmon, 1 serving	120
Sardines, 1 serving	180
Shrimp, 1 serving	110
Tuna, 1 serving	170

SOUPS

Bean, 1 serving	190
Beef, 1 serving	100
Bouillon, 1 serving	10
Chicken, 1 serving	75
Clam chowder, 1 serving	85
Vegetable, 1 serving	80

SWEETS

Candy bar, all chocolate	150
Candy bar, chocolate coated	270
Jellies and jams, 1 tablespoon	60
Sugar, 1 teaspoon	25
Syrup, 1 tablespoon	50

VEGETABLES

Asparagus, 1 serving	20
Beets, 1 serving	40
Cabbage, 1 serving	40
Carrots, 1 serving	25
Celery, 1 stalk	5
Corn, 1 serving	85
Lettuce, 1 serving	5
Onions, 1 serving	40
Peas, 1 serving	55
Potatoes, 1 medium	90
Radishes, 1	2
Sauerkraut, 1 serving	25
Spinach, 1 serving	20
String beans, 1 serving	30
Tomatoes, 1 medium	30

SPECIAL COMBINATIONS

Beef stew, 1 serving	250
Fruit cocktail, 1 serving	100
Humberger	250
Ham sandwich	280
Hot dog	250
Macaroni and cheese, 1 serving	300
Peanut butter sandwich	300
Pork and beans, 1 serving	250
Potato salad, 1 serving	250
Spaghetti (tomato sauce), 1 serving	250
Spaghetti (meat sauce), 1 serving	400

Others

Butter, 1 tablespoon	100
Margarine, 1 tablespoon	100
Mayonnaise, 1 tablespoon	110
Popcorn, 1 cup	70
Potato chips, 10 medium	100
Pretzels, 10 sticks	40
Rice, 1 serving	100

REFERENCES

RESOURCE BOOKS

Boyd, Fannie Lee, *A resource Guide for Use in Teaching Nutrition—Grades 1 Through 7.* 1969. 53 pp.; $1.00. (Teaching ideas and resource list). Department of Home Economics Education, University of Georgia, Athens, Georgia 30601.

Holzmueller, Diana Lynn. *Multi Media Resource List: Indian and Eskimo Culture in the North.* 1973. 59 pp.; Resource materials including books for preschoolers thru adults, exhibits, films and filmstrips and their sources, University of Alaska, College, Alaska 99901.

Martin, Ethel Austin, *Nutrition Education in Action – A Guide for Teachers,* 1963. 135 pp., (classroom activites to fit in elementary school curriculum). Holt, Reinhart, & Winston, 383 Madison Avenue, New York 10017.

McWilliams, Margaret, *Nutrition for the Growing Years.* 1967. 303 pp., $6.95. John Wiley and Sons, New York 10000.

New York City Board of Education, *Science – Grades 3-4.* 1966. 399 pp., $2.50. Board of Education of the City of New York, Publications Sales Office, 110 Livingston St., Brooklyn, New York 11201.

Pitcher, E. G., Lasher, M. G.; Feinburg, S.; and Hammond, N.C., *Helping Young Children Learn.* A Charles E. Merrill Professional Book, 1966. pp. 81-94 (Cooking and water play).

Rose, M. D., *Teaching Nutrition to Boys and Girls.* 1932. 198 pp. (general consideration for teaching nutrition to children, lesson outlines and animal experiments).

UNESCO: *700 Science Experiments for Everyone.* 1962. 252 pp., $2.50 (simple experiments on plants and bacteria). Doubleday & Co., Inc. Garden City, New York 11530.

BOOKS FOR CHILDREN

These books are available in paperback from Inquire Department, Scholastic Magazines. 904 Sylvan Avenue, Englewood Cliffs, New Jersey 07632.

1. **Hoban.** *Bread and Jam for Frances.* What happens when a little badger is allowed a steady diet of her favorite bread and jam. 50 cents.

2. **Hodges.** *What's for Lunch, Charley.* An eight-year-old's day starts out badly with a forgotten lunch box, but things look up when he decides to eat at the King Charles Hotel. 60 cents.

3. **Krasilovksy.** *The Man Who Didn't Wash His Dishes.* Illustrated by Cooney. Absurd, delightful tale about a little man who liked to eat but not to do dishes — and how he solved his problem. 50 cents.

4. **Krauss.** *The Carrot Seed.* About a small boy's faith that a carrot will grow from the seed he has planted — even though everyone says, "It won't come up." 35 cents.

5. McGovern. *Stone Soup.* Illustrated by Langner: Clever young man makes soup from a stone with the aid of a greedy old lady. 60 cents.

6. Moore. *The Lucky Cook Book for Boys and Girls.* Illustrated by Stubis: Picture cookbook with easy-to-read, easy-to-follow directions for cinnamon toast, hamburgers-in-the-oven, party punch and more. 60 cents.

7. Sendak. *Chicken Soup with Rice.* A Book of Months. The author sings the praises of his favorite soup in gay rhymes and pictures for each month of the year. 75 cents.

8. Zion. *The Plant Sitter.* Illustrated by Graham. Amusing adventures of a young amateur horticulturist "plant-sitting" for vacationing neighbors. 75 cents.

CHILDREN IN THE KITCHEN

Brubaker, M. H. *Cooking is Fun.* 1970, 15 pp., National Dairy Council, Chicago, Illinois 60606. (Written for young children to learn to prepare a few simple foods.)

Cobb, Vikki. *Science Experiments You can Eat.* 1972, 172 pp., $1.95 (39 science experiments investigating properties of food) Illustrated, J. B. Lippincott Company, Philadelphia and New York.

Croft, Doreen. *Recipes for Busy Little Hands.* 1967, 44 pp., $2.95, (paint recipes, plastic art, things to do, finger plays, food recipes). Distributor: R. D. Reed, 18581 McFarland Aveneu, Saratoga, California 95070.

Ellison, Virginia H. *The Poob Cook Book.* 1969, 120 pp., $4.50 (recipes can be used for any meal or snack; simple recipes, creative ideas, and illustrations from the Winnie-the-Pooh stores). E. P. Dutton & Co., New York.

FILMS

Alaska State Film Library, Anchorage Center, 650 International Airport Road 99503 or Pouch F, State Office Building, Juneau 99811, has several films and filmstrips relating to food and nutrition. A complete list is given in their catalog. A limited number of records and tapes are also available.

Center for Northern Education, University of Alaska, Fairbanks, has recently made several films about life in different parts of Alaska. Among them is "At the time of Whaling." Write to the center for further information.

NUTRITION GAMES

American School Food Service Association, 4100 East Iliff Avenue, Denver, Colorado. Yummy Rummy card game, puzzles, send for order sheet.

Clemson University, FN Leaflet 7, April 1974, Clemson S.C. "Nutrition Games, Puzzles and Things to Do."

Illinois Teacher, 342 Education Building, University of Illinois, Urbana, Illinois 61801. "Nutrition Insurance" $1.00.

Kellogg Company, Home Economics Services, Department HE 967, Battle Creek, Michigan 49016. "Breakfast, U S A." free

United Fresh Fruit and Vegetables Association, 1019 19th Street, N.W., Washington D.C. 20036, "Jane and Jimmy Learn About Fresh Fruits and Vegetables." USDA, Food and Nutrition Service, Nutrition and Technical Services Staff, Midwest Regional Office, 536 S. Clark Street, Room 970 Chicago, Illinois 60605 "Happy Face Game" "Yummy Ice Cream," and "Too Good For the Cow."

PAMPHLETS AND TEACHING AIDS

AMERICAN DENTAL ASSOCIATION, 211 E. Chicago Avenue, Chicago, Illinois 60611.
"Healthy Teeth — A Happier School Child"
"Diet and Dental Health"

AMERICAN DRY MILK INSTITUTE, INC. Research Education, 130 N. Franklin Street, Chicago, Illinois 60606.

AMERICAN INSTITUTE OF BAKING, 400 East Ontario Street, Chicago, Illinois 60611.
"Foodway to Follow" (poster 20 cents, notebook size 10 cents and check chart 10 cents)
"Breading the Making" 15 cents
"The Food Mobile" with teacher's guide 75 cents

AMERICAN MEDICAL ASSOCIATION, 535 North Dearborn Street, Chicago, Illinois 60610
"The Merchants of Menace" 10 cents
"Can Food Make the Difference" 10 cents
"Vitamin Supplements and Their Correct Use" 10 cents
"Your Age and Your Diet" 10 cents

AMERICAN SCHOOL FOOD SERVICE ASSOCIATION, 4101 E. Iliff Avenue, Denver, Colorado 80210.
"Students — School Lunch Means Good Nutrition" 6 cents
"Yummy Rummy" (A nutrition education card game) $1.25
"Coloring Book" 20 cents
"Activities Book" (puzzles and games) Grades 2-6, 20 cents
Many other materials available. Send for order sheet.

CANNED SALMON INSTITUTE, 3100 South 176th, Seattle, Washington 98188

CEREAL INSTITUTE, INC., 135 South LaSalle Street, Chicago, Illinois 60603

DAVID COOK PUBLISHING COMPANY, 850 North Grove Avenue, Elgin, Illinois 60120.
From the 1970-71 Teaching Aid Catalog.
Picture series (each has 12 pictures, $2.25)
"Plants and Seeds"
"Seasons"
"A Trip to the Farm"
"Health and Cleanliness"
"Food and Nutrition"
Flannelgraph — song set with records.
"Farm" (six songs for farm animals) $2.25
"Helping and Sharing" $2.25
Science Studies Flannelgraph (with songs, stories, actions and rhymes) $2.50
Projects and Paterns Book (for making puppets, shells, spool animals and instruments) 64 pp. $1.95.

DEL MONTE KITCHENS, P.O. Box 3575, San Francisco, California 94119.
"The Big Four Daily Countdown" Nutrients chart and students guides are also available free on request.

EVAPORATED MILK ASSOCIATION, Home Economics Education Services, 910 Seventeenth Street, N.W., Washington, D. C. 20006

GENERAL MILL, INC., 9200 Wayzata Boulevard, Minneapolis, Minnesota 55440.

GREEN GIANT COMPANY, 5601 Green Valley Drive, Minneapolis, Minnesota 55431.
Versatile Vegatable charts.

ABC SCHOOL SUPPLY, INC., P.O. Box 13084, Atlanta, Georgia 30324. (Send for 442-page catalog of books, puppets, records, etc.).
"Food and Nutrition," 12 full-color teaching pictures with resource sheets.
"3-D Plastic Food Models," Refrigerator set — No. 501-1140, $2.50;
14 Fruits — No. 22/322/2. $2.95; 12 Vegetables — No. 22-411/6, $2.95.

ASSOCIATED MILK FOUNDATIONS OF CANADA, 2 Thronscliffe Park Drive, Toronto 17, Canada.
"Special Me," Health Series picture cards. Set of 13 card aid in teaching basic health rules. One side of each card carries one verse of poem,
"Special Me." $150. Student worksheets, 3 each.
"Puppet Theater Kit," (collapsible cardboard theater with four stick puppets, with a teacher's guide) $10.00.

COOPERATIVE EXTENSION SERVICE, University of Alaska, Fairbanks or nearest regional office. Catalog is available listing numerous publications written for use in Alaska.

NUTRITION FOUNDATION, INC., 99 Park Avenue, New York, New York 10016.

SCOTT, FORESMAN & CO., Glenview, Illinois 60025.
Picture Floor Puzzle, "Breakfast," 1854-68, $10.20. Full-color puzzle on hardboard, 36X24 inches, 15 interlocking pieces. Help build basic nutrition concepts. Teacher's guide.
Talkstarters, "At the Store," 2888-67, $15.00. Six full-color charts (16X20 inches), 8 page teacher's resource booklet and grocery store display shelves with easel back and 36 food cutouts.
"Health and Safety Highlights" (pictures and songs for young children) 01899-70, $10.20. 12 photographs 15X18 inches with 10 inch LP record for health songs sung by folksinger Ella Jenkins, and a teacher's resource book.

SOCIETY FOR VISUAL EDUCATION, INC., 1345 Diversey Parkway, Chicago, Illinois 60614.
Picture-story study prints — 18X14 inches, $8.00.
"Common Fruits," SP-108(strawberry, banana, blackberry, date, grape, orange, peach and pear).
"Community Helpers," SP 122, (Dairy helpers).
"Farm and Ranch Animals," SP 106.

FLORIDA DEPARTMENT OF CITRUS, Institutional and School Marketing Department, P.O. Box 148, Lakeland, Florida 33802.
"Master for Spirit Duplicators" — Orange Clock to teach time.
"Better Breakfast Cutouts," 85 cents. Set of 32 food models in color and natural size.

KELLOGG COMPANY, Department of Home Economics Services, Battle Creek, Michigan 49016.

LIBBY, McNeill and Libby, 200 South Michigan Avenue, Chicago, Illinois 60604.

NATIONAL CANNERS ASSOCIATION, Home Economics — Consumer Services, 1133 20th Street, N.W. Washington, D. C. 20036.

NATIONAL DAIRY COUNCIL, 111 North Canal Street, Chicago, Illinois 60606.
Numerous pamphlets, posters and charts are available. Write for a catalog.
The following are especially applicable.
"Milk Made the Difference," No. P 512.
"We All Like Milk," 12 prints, teacher's guide, No. 32. $1.25.
"What Did You Have for Breakfast This Morning" poster 35 cents, activity piece 3 cents, teacher's guide 20 cents.

NATIONAL LIVESTOCK AND MEAT BOARD, 36 South Wabash Avenue, Chicago, Illinois 60603.

NOVO EDUCATIONAL TOY AND EQUIPMENT CORPORATION, 585 Avenue of the Americas, New York 10011.
Puzzle Plaques 9½X11½ inches, $1.80 each: No. 155-18 (4 pieces)
"Fruits I Like" No. 155-25 (4 pieces) "The Milky Way"

SUNKIST GROWERS, Consumer Service Division, Bow 7888, Valley Annex, Van Nuys, California 91409.

VITAMIN INFORMATION BUREAU, INC., 575 Lexington Avenue, New York, New York 10022.

WHEAT FLOUR INSTITUTE, Supervisor of Distribution, 14 East Jackson Boulevard, Chicago, Illinois 60604.

ALASKAN NUTRITIONAL RESOURCES

1. "Alaskan Food Choices." 16mm. film or video tape. Explains the food groups. Shows sources of food both from the store and from the land. Emphasizes buying the best nutritional values. Most suitable for high school and adult audiences, but older elementary children can benefit. The film is distributed by the Cooperative Extension Service, University of Alaska, Fairbanks. The color video tape is available from the State Film Library.

2. Cooperative Extension Service, University of Alaska, Fairbanks, has numerous pamphlets specifically written for Alaska.

3. "Good Foods Book." Coloring book designed to teach the food groups with emphasis on native foods. Cooperative Extension Service, University of Alaska, Fairbanks.

4. "If We Work Together." 16mm. film. Developed for Head Start but is applicable to elementary grades. Alaskan Head Start children visit the health aide and learn to use good dental habits at home and school. There is a discussion of balanced lunch and use of native foods. Distributed by Rural Alaska Community Action Program, Inc., 1016 East 4th Avenue, Anchorage.

5. "Isaac Iron, Practical Suggestions to Help Prevent Iron Deficiency Anemia." Booklet imaginatively illustrated to characterize the role of iron in the body. Food sources of the nutrient are pictured. The booklet is appropriate for use in grades 1 through 8. It is available through the Alaska Treatment Center, 3710 E. 20th Avenue, Anchorage 99504.

6. Graham, Sandra; Chief Nutritionist, Section of Community Health, Division of Public Health, Alaska Department of Health and Social Services, Pouch 806C, Juneau 99811. Can provide posters and pamphlets relating to nutrition in Alaska, among them, "Alaska's Garden and Wild Vegetables and Fruits for Good Nutrition."

PROFESSIONAL PUBLICATIONS

1. *Journal of Nutrition Education.* 119 Morgan Hall, University of California, Berkley, California 94720. $5/year-published quarterly. ("...design for professionals who are interpreters of nutritional science and motivators for the development of good nutrition practices.") Editorial, articles, current topics, government action, program ideas, coming events and reviews.

2. *Journal of Home Economics.* American Home Economists Association, 1600 Twentieth Street, N.W. Washington, D.C. 20009. $12/year-monthly except July and August, $1.35/copy. (Articles by professional home economists as well as materials on recruitment, research abstracts, reviews of new books and articles, general and research articles, AHEA news, Washington news, new books and membership news.)

3. *Nutrition Today.* 1140 Connecticut Avenue, N.W., Washington, D.C. 20036. Bimonthly publication, $6/year, $3/year students. For physicians, dietitians, nutritionists, educators in nursing and home economics, there is a one time charge of $5. (Review of current nutrition topics, editorials, applied nutrition.)

4. *School Food Service Journal.* American School Food Service Association, 4101 East Iliff Avenue, Denver, Colorado 80222 . $20.00 per year for non-members.

5. *Today's Health.* 535 N. Dearborn Street, Chicago, Illinois 60610. $5/year-published monthly by the American Medical Association. (Health articles of current interest and relevancy for the general public.)